Specifications — ISM 182, ISM 482 Scaling Matrix Switchers

Video

Routing	8 x 2 matrix

Video input

Number/signal type	8 RGBHV, RGBS, RGsB, RGBcvS, component video, S-video, composite video
Connectors	8 x 5 female BNC
Nominal level	1 Vp-p for Y of component video and S-video, and for composite video 0.7 Vp-p for RGB 0.3 Vp-p for R-Y and B-Y of component video, and for C of S-video
Minimum/maximum levels	Analog: 0 V to 1.0 Vp-p with no offset
Impedance	75 ohms
Horizontal frequency	
ISM182	Autoscan 15 kHz to 85 kHz (RGB)
ISM 482	Autoscan 15 kHz to 100 kHz (RGB)
Vertical frequency	Autoscan 50 Hz to 100 Hz
Resolution range	Autoscan 720 x 525 to 1600 x 1200

Video processing

Decoder	9 bit digital
Digital sampling	24 bit, 8 bits per color; 13.5 MHz standard (video), 140 MHz standard (RGB)
Colors	16.78 million
Horizontal filtering	4 levels
Vertical filtering	8 levels

Video output

Number/signal type	2 scaled RGBHV, RGBS
Connectors	2 x 5 BNC female, (2) 15-pin HD female
Nominal level	0.7 Vp-p for RGB
Minimum/maximum levels	0 V to 0.7 Vp-p
Impedance	75 ohms
Scaled resolutions	
ISM 182	640x480[1,3,4,6], 800x600[1,3,4,6], 832x624[3,4,6], 848x480[3,6], 852x480[3,6], 1024x768[1,3,4,5,6]
ISM 482	640x480[1,3,4,6], 800x600[1,3,4,6], 832x624[3,4,6], 848x480[3,6], 852x480[3,6], 1024x768[1,3,4,5,6], 1280x768[2,6], 1280x1024[1,3], 1360x765[3,6], 1365x1024[3,6], 1400x1050[1,3,6], 576p[1,6], 720p[3,6], 1080p[3,6], 1080i[1,3,6] [1] = at 50 Hz [2] = at 56 Hz [3] = at 60 Hz [4] = at 75 Hz [5] = 85 Hz [6] = locked to the current input's vertical refresh rate (Accu-RATE Frame Lock)
Return loss	-30 dB @ 5 MHz
DC offset	±5 mV with input at 0 offset

Sync

Input type	Autodetect RGBHV, RGBS, RGsB, RGBcvS
Output type	RGBHV, RGBS
Standards	NTSC 3.58, NTSC 4.43, PAL, SECAM
Input level	0 V to 5.0 Vp-p
Output level	0 V to 5.0 Vp-p, unterminated
Input impedance	510 ohms
Output impedance	75 ohms
Max input voltage	5.0 Vp-p
Max. propagation delay	20 ns
Polarity	Positive or negative (selectable)

Audio

Routing	8 x 2 stereo matrix
Gain	Unbalanced output: 0 dB; balanced output: +6 dB
Frequency response	20 Hz to 20 kHz, ±0.05 dB
THD + Noise	0.03% @ 1 kHz at nominal level
S/N	>90 dB at maximum output (unweighted)
Crosstalk	<-80 dB @ 1 kHz, fully loaded
Stereo channel separation	>90 dB @ 1 kHz
CMRR	>75 dB @ 20 Hz to 20 kHz

Audio input

Number/signal type	8 stereo, balanced/unbalanced
Connectors	(8) 3.5 mm captive screw connectors, 5 pole
Impedance	>10k ohms unbalanced/balanced, DC coupled
Nominal level	Configurable: -60 dBV (1 mVrms), +4 dBu (1.23 Vrms), 0 dBu (0.775 Vrms), -10 dBV (316 mVrms), -20 dBV (100 mVrms)
Maximum level	+19.5 dBu, (balanced or unbalanced) at 1%THD+N
Input gain adjustment	–24 dB to +9 dB, adjustable per input

NOTE *0 dBu = 0.775 Vrms, 0 dBV = 1 Vrms, 0 dBV ≈ 2 dBu.*

Audio output

Number/signal type	2 stereo, balanced/unbalanced
Connectors	(2) 3.5 mm captive screw connectors, 5 pole
Impedance	50 ohms unbalanced, 100 ohms balanced
Gain error	±0.1 dB channel to channel
Maximum level (Hi-Z)	>+21 dBu, balanced or unbalanced at 1%THD+N
Maximum level (600 ohm)	>+15 dBm, balanced or unbalanced at 1%THD+N

Control/remote — switcher/scaler

Serial control port	RS-232, 9-pin female D connector
Baud rate and protocol	9600 baud, 8 data bits, 1 stop bit, no parity
Serial control pin configurations	2 = TX, 3 = RX, 5 = GND
Ethernet control port	1 RJ-45 female connector
Ethernet data rate	10/100Base-T, half/full duplex with autodetect
Ethernet protocol	ARP, ICMP (ping), TCP/IP, Telnet
Program control	Extron's control/configuration program for Windows® Extron's Simple Instruction Set (SIS™) Microsoft® Internet Explorer, Telnet

General

Power	100 VAC to 240 VAC, 50/60 Hz, 60 watts, internal, autoswitchable
Temperature/humidity	Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing
Rack mount	Yes
Enclosure type	Metal
Enclosure dimensions	5.25" H x 17.5" W x 11.2" D (3U high, full rack wide) 13.3 cm H x 48.3 cm W x 28.4 cm D (Depth excludes connectors and knobs. Width excludes rack ears.)
Product weight	11.2 lbs (5.1 kg)
Shipping weight	17 lbs (8 kg)
DIM weight	
USA/Canada	18 lbs (9 kg)
International	21 lbs (10 kg)

Vibration	ISTA 1A in carton (International Safe Transit Association)
Listings	UL, CUL
Compliances	CE, FCC Class B
MTBF	30,000 hours
Warranty	3 years parts and labor

NOTE *All nominal levels are at ±10%*

NOTE *Specifications are subject to change without notice.*

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